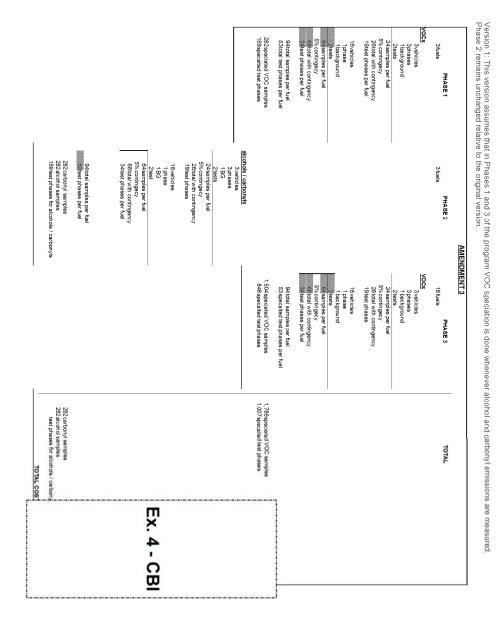


Kevin Whitney's original version

[X. 4 - CD]				
Ex. 4 - CBI	922 carbonyl samples 922 alcohol samples 482 test phases for alcohols / carbonyls	544 carbonyl samples 544 alcohol samples 272 test phases for alcohols / carbonyls	282 carbonyl samples 282 alcohol samples 159 test phases for alcohols / carbonyls	96 carbonyl samples 96 alcohol samples 51 test phases for alcohols / carbonyls
			94 total samples per fuel 53 test phases per fuel	
			64 samples per fuel 5% contingecy 68 trail with contingency 34 test phases per fuel	
			16 vehicles 1 phase 1 BG 2 test	
		32 samples per tuel 5% contingery 34 total with contingency 17 test phases per fuel	24 samples per ruel 5% contingery 26 total with contingency 19 test phases	32 samples per tuel 5% contingecy 34 total with contingency 17 test phases per fuel
		additional alcohols / carbonyls 16 vehicles 1 phases 1 background 1 test	alcohols / carbonyls 3 vehicles 3 phases 1 B3 2 tests	additional alcohols / carbonyls 16 vehicles 1 phases 1 background 1 test
Ex. 4 - CBI	1,102 speciated VOC samples 665 specaited test phases	35 specaited test phases per fuel 928 speciated VOC samples 560 specaited test phases		35 total test phases per fuel 174 speciated VOC samples 105 speciated test phases
		To vehicles 1 phase 1 background 1 test 32 samples per fuel 16 test phases 58 total samples per fuel		To vehicles 1 phase 1 background 1 test 32 samples per fuel 16 test phases per fuel 58 total samples per fuel
		WOCs 3 phases 3 phases 1 background 2 tests 24 samples per fuel 5% contingecy 26 total with contingency 19 test phases		3 vehicles 3 hases 1 background 2 tests 24 samples per fuel 5% contingecy 26 total with contingency 19 test phases per fuel
	TOTAL	PHASE 3 16 fuels	PHASE 2 3 fuels	PHASE 1 3 fuels
		AMENDMENT 3	AMEN	



JOGS
3 vehicles
3 phrases
1 background
2 tests
2 samples per fuel
5% continger;
2 Stotal with contingency
1 test phrases per fuel Version 2: This version assumes that in Phases 1, 2 and 3 of the program VOC speciation is done whenever alcohol and carbonyl emissions are measured. 16 vehicles
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5% contingery
Fitcial with contingency
Attest phases per fuel 282speciated VOC samples 159specaited test phases 94total samples per fuel 53total test phases per fuel 16 vehicles
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44 test phases per fuel 3 vehicles
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3 test phases perfuel 1,504 speciated VOC samples 848 speciated test phases 94total samples per fuel 53specaited test phases per fuel 16fuels PHASE 3 2,068 speciated VOC samples@ 1,166 speciated test phases TOTAL Ex. 4 - CBI

EPAct Program Cost Estimates (1/30/2008)	ates (1/30/2	008)	
Category	Cost	Totals	
12/20 SWRI Proposal		1	
Spreadsheet errors in calculating the cost of exhaust gas speciation		•	
Reduction of night shift staffing from 3 to 2		\$ 3,653,610	
VOC speciation always done with alcohol and carbonyl measurements	Ex. 4 - CBI	\$ 3,784,070	
Projected additional cost of test fuels		\$ 3,990,000	Program cost recommended for approval
Phase 2 FTIR and Phase 3 E85 FTIR		\$ 4,032,000	
Alcohol measurement by Innova in Phases 2 and 3 (\$2002,8408(1007/1166)		\$ 3,856,820	\$ 3,856,820Projected final porgram cost